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(54) Title: OBESITY-RELATED GENES

(57) Abstract: The present invention relates generally to a nucleic acid molecule which is expressed in at least red gastrocnemius muscle or its equivalent under particular physiological conditions. It is proposed that the nucleic acid molecule is differentially expressed under differing conditions of healthy state, myopathy, obesity, anorexia, weight maintenance, diabetes, disorders associated with mitochondrial dysfunction, genetic disorders, cancer, heart disease, inflammation, disorders associated with the immune system, infertility, disease associated with the brain and/or metabolic energy levels. The subject nucleic acid molecule and/or its expression product is proposed to be used in therapeutic and diagnostic protocols for conditions such as healthy state, myopathy, obesity, anorexia, weight maintenance, diabetes, disorders associated with mitochondrial dysfunction, genetic disorders, cancer, heart disease, inflammation, disorders associated with the immune system, infertility, disease associated with the brain and/or metabolic energy levels or as targets for the design and/or identification of modulators of their activity and/or function.

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